

**AMENDMENTS**

Please amend the above-identified application as follows:

**In the Claims:**

This listing of claims replaces all prior versions and listings of claims in the application.

1           1. (Currently Amended) An apparatus for performing the addition of a  
2 propagate, kill, and generate recoded numbers, said apparatus comprising:  
3           a circuitry configured to receive at least a first operand, ~~and~~ a second operand,  
4 and a carry-in bit, the first and second operands comprising respective first and second  
5 propagate, kill, and generate recoded number representations of respective first and  
6 second binary operands;  
7           a first carry-save adder configured to add said first operand and said second  
8 operand to generate a third propagate, kill, and generate recoded number  
9 representation and a carry-out bit; and  
10          a modified carry-save adder configured to receive the third propagate, kill, and  
11 generate recoded number representation from the first carry-save adder, the carry-out  
12 bit, and the carry-in bit from the circuitry, add the separate propagate, kill, and  
13 generate bits of the third propagate, kill, and generate recoded number representation  
14 ~~in accordance~~ with a the carry-out bit and the carry-in bit to generate a sum value and  
15 a carry value.

1           2. (Original) The apparatus of claim 1, wherein said sum value and said  
2 carry value are dual rail encoded values.

1           3.-6. (Canceled)

1           7.   (Currently Amended) A method for processing propagate, kill, and  
2   generate representations of respective first and second binary operands, comprising:  
1           receiving a carry-in value and a first and a second propagate, kill, and generate  
2   representation of respective first and second binary operands;  
3           adding the first and second propagate, kill, and generate representations to  
4   generate a third propagate, kill, and generate representation and a carry-out value; and  
5           mathematically combining the third propagate, kill, and generate  
6   representation ~~in accordance~~ with the carry-out value and the carry-in value to  
7   generate a sum value and a carry value.

1           8.   (Previously Presented) The method of claim 7, wherein said step of  
2   mathematically combining comprises adding the third propagate, kill, and generate  
3   representation and the carry-in value.

1           9.   (Canceled)

1           10.   (Previously Presented) The method of claim 7, wherein said step of  
2   mathematically combining further comprises generating dual rail encoded values.

1           11-22.   (Canceled)